

Remarks

A. Drawing Objections.

The Examiner objected to the drawings on the ground that the “first anchor slot sized to clearly receive one of the first pairs of anchors therethrough is not shown. Action at 4. Reconsideration of the objection is requested.

The first anchor slot is shown in Figure 17, and is designated by reference numeral 212. Figure 17 is a side view of the post, in which the post width measures 12 mm. The width of the anchor slot 212 shown in Figure 17 is 9 mm, while its height is 4 mm.¹ Figure 18 is a side cross-sectional view of the post, and is drawn to the same scale as Figure 17, with a post width of 12 mm. Figure 18 shows first anchors 270 having a width of 4 mm and a height of 2 mm. The first anchor 270 is thus short and narrow enough to be clearly received through the first anchor slot 212. It is accordingly believed that Figures 17 and 18 adequately illustrate the claimed first anchor slot and its size relative to the first anchors.

The Examiner further objected to the drawings for failure to show the “membership” limitations of claims 9-20. Action at 4. These claims have either been cancelled or amended to delete references to “membership.” It is believed that these amendments have obviated any need for further drawings.

¹The first anchor slot 212 is covered by a first slot cover 216 after assembly. See specification, page 51, lines 10-12. This first slot cover 216 is shown in Figure 17, but has been partially cut away so that the dimensions of the first anchor slot 212 are apparent. See specification, page 5, lines 10-11.

B. Specification Objections.

The Examiner objected to the first paragraph of the specification for failure to reference a patent that has issued on one of the applications referenced in the claim of priority. Action at 5. This omission has been cured by amendment.

The Examiner further objected to the specification for failing to provide an antecedent basis for the “membership” limitations of claims 9-20. Action at 5. These claims have either been cancelled or amended to delete references to “membership.” It is believed that these amendments have obviated any need for amendment of the specification.

C. Claim Objections.

The Examiner objected to the phrase “first end” in claims 1, 9 and 14. Action at 5. Each of these claims has been amended to delete the challenged language, and care has been taken to reference this element as a “second end” in the additional language added to the claims.

The Examiner further objected to the claims because of the purported absence from the specification of disclosure supporting the “membership” limitations of claims 9-20. Action at 6. These claims have either been cancelled or amended to delete references to “membership.” It is believed that these amendments have overcome the objections.

D. Section 112 Rejections.

The Examiner rejected claims 9-20 under 35 U.S.C. § 112, second paragraph, on grounds of indefiniteness in the use of numbered “pluralities” and “membership.”

Action at 6-7. Claims 10, 12-13 and 15-20 have been cancelled. Reconsideration is requested as to the remaining claims.

Claims 1, 3, 9, 11 and 14 have each been amended to delete any reference to a numbered pluralities of posts. Instead, all pending claims now reference “a plurality of posts.” In addition, none of the pending claims now reference “members” of a plurality. Instead, claim 9 now simply defines a second rail system supported by the plurality of posts defined in claim 1. Amended claim 14 now defines a third rail system and identifies additional posts in the “plurality” that support the third rail system, including a third terminal post and at least one second intermediate post. The “intermediate posts” referenced in claims 1, 3 and 11 have been redesignated “first intermediate posts,” in order to distinguish them from the “second intermediate posts” referenced in amended claim 14. It is believed that these amendments have overcome the rejections.

E. Anticipation Rejections.

The Examiner rejected claims 1-8 and 21-30 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 4,979,817, issued to Crisp, Sr. Action at 7-11. Claims 4, 6, 7, 25, 26 and 30, have been cancelled. Reconsideration of the rejections is requested as to the remaining claims.

In the Crisp system, one end of the cable 24 passes through concrete super post 14 and then extends downwardly to ground level, where it is anchored underground in the concrete anchor 28' used to support another super post 14'. See Crisp Figure 1

and column 3, lines 37-41. As Crisp's Figure 4 illustrates, the end of the cable is situated at a position external to the post 14'. See also Crisp column 4, lines 6-8.

The Applicants' claim 1 has been amended to specify that the "plurality" of posts includes two tubular terminal posts and at least one intermediate post. Each of the terminal posts is "at least partially filled with ballast" and supported by a corresponding anchor substrate. The first rail cable assembly is characterized as having a first end "embedded in the ballast within the first terminal post" and an opposed second end "embedded in the ballast within the second terminal post. Because the ends of Crisp the cable are not "embedded in the ballast **within**" the concrete super posts 14, amended claim 1 is not anticipated by Crisp.

Claims 2, 3, 5, and 8 depend from claim 1 and include all of its limitations. These dependent claims are allowable for the same reasons as claim 1.

A further reason for the allowability of amended claim 2 is that this claim requires first and second anchors "at least partially embedded in the ballast within" the first terminal and second posts. The structure that the Examiner has characterized as an "anchor" is the end 32 of the cable. But inasmuch as the end 32 of the Crisp cable is not embedded in the ballast within the post 14, it does not satisfy claim 2.

Elsewhere in the Action, the Examiner contended that "the portion of [cable\ 24 embedded and anchored within 14" was an "anchor." Action at 9. But claim 2 requires **both** a cable **and** an anchor. The Examiner has construed "anchor" so broadly that the term reads on a "cable." If this construction were accepted, then the "cable" limitation of the claim would become wholly unnecessary and without purpose. Such

a construction is unsound: the Federal Circuit has repeatedly rejected constructions that render a limitation superfluous. See, e.g., *General American Transportation Corp. v. Cryo-Trans, Inc.*, 93 F.3d 766, 770, 39 USPQ2d 1801, 1803 (Fed. Cir. 1996).

Words in a claim must be afforded their plain meaning, unless that plain meaning is inconsistent with the specification. See *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). The ordinary meaning of “anchor,” as evidenced by its dictionary definition, is “something that serves to hold an object firmly.” See Webster’s Ninth New Collegiate Dictionary at 84 (1991). In the Applicants’ claim 2, the “object” being held firmly is a cable. But because a cable cannot “firmly hold” itself, an “anchor” must necessarily be something other than the cable that it “firmly holds.” When claim 2 is properly construed to give effect to both the “cable” and “anchor,” limitations, it is evident that “anchor” must correspond to some structure other than the “cable.”

This construction of “anchor” is fully consistent with the Applicant’s specification, which identifies the cable and anchor as distinct structures. See, e.g., page 28, lines 7-9 (“the first rail cable assembly preferably further comprises at least one, and preferably a plurality of first anchors 270, which anchor the first cable 264”). It is also consistent with Crisp’s similar differentiation of “anchor” and “cable.” See Crisp, column 3, lines 43-44 (“securing an end of the **cable** in the concrete **anchor** of a post”). Because Crisp discloses no “anchor” within a terminal post, claim 2 is not anticipated.

A further reason for the allowability of claim 8 is that this claim requires that the terminal post include an anchor slot sized to closely but clearly receive the first cable and an attached anchor therethrough. No such structure is disclosed by Crisp. Instead, Crisp's Figure 3 shows a opening 39 and sleeve 40 which closely surrounds the cable 24 and its enclosing rail 22. There would be no room for any such anchor, when attached to the cable 24, to be passed through Crisp's opening 39. Amended claim 8 is accordingly not anticipated.

Claim 21 has been amended to identify at least one of the plural posts as a tubular terminal post. The amended claim further requires that the terminal post be characterized "by an elongate lateral portion having a first anchor slot formed therein, the first anchor slot sized to clearly receive the first cable and an attached anchor therethrough." Much as discussed with regard to claim 8, Crisp discloses no such structure. Claim 21 is accordingly not anticipated.

Claims 22-24 and 27-29 depend from claim 21, and include all of its limitations. These dependent claims are allowable for the same reasons as claim 21.

A further reason for the allowability of amended claim 27 is that this claim positively requires that the kit include a slot cover adapted to selectively close in the first anchor slot. No such limitation is disclosed by Crisp, who has no need for a slot cover because the cable 24 and rail 22 fully occupy the opening 39 in the Crisp post. Claim 27 is not anticipated.

A further reason for the allowability of claim 28 is that this claims requires that the slot cover have a cable opening formed therein, sized to clearly receive all or

part of the first cable. Much as discussed with regard to claim 27, Crisp does not disclose or suggest such a feature.

F. Obviousness Rejections.

The Examiner rejected claims 9-20 under 35 U.S.C. § 103 as obvious in view of the system shown in Figure 1 of the Crisp patent. Action at 11-13. Claims 10, 12-13 and 15-20 have been cancelled. Reconsideration is requested as to the remaining claims.

Claims 9, 11 and 14 depend directly or indirectly from claim 1. As discussed with regard to the anticipation rejections, claim 1 has been amended to specify that the “plurality” of posts includes two tubular terminal posts and at least one intermediate post. Each of the terminal posts is “at least partially filled with ballast” and supported by a corresponding anchor substrate. The first rail cable assembly is characterized as having a first end “embedded in the ballast within the first terminal post” and an opposed second end “embedded in the ballast within the second terminal post. Because the ends of the Crisp cable are not “embedded in the ballast **within**” the concrete super posts 14, Crisp does not satisfy the limitations of claim 1, or of dependent claims 9, 11 and 14.

Nor would the structure of claim 1 have been obvious in view of Crisp. When a moving vehicle frontally strikes the Crisp fence, the tension in cables 24' will dramatically increase. In order to prevent such a vehicle from breaking through the fence, the ends 32' of the cables 24' must be firmly anchored. As illustrated in Figure 1, Crisp uses two adjoining “superposts,” 14' and 14, to provide this anchoring. The

horizontal run of cable 24' that protects against vehicle intrusion, terminates at superpost 14'. Cable 24' then slopes to the ground, enters the ground, passes through adjacent superpost 14, and terminates on the opposite side of superpost 14 within the concrete mass 28. In effect, three structures function as “anchors” in the Crisp system: the ground, the adjacent superpost 14, and the concrete mass 28 that supports adjacent superpost 14.

One drawback with the Crisp system is that it features a “spiderweb” area between the adjacent superposts. This spiderweb structure does not have the appearance of a conventional fence. The proprietors of some protected installations, such as embassies and government facilities open to the public, may prefer a cable-reinforced fence having a more conventional appearance, so as not to convey an unduly forbidding impression.

A second problem with the spiderweb structure of Crisp's fence is that it is less secure than the rest of the fence. At the midpoint between the superposts, the cable-reinforced rails intersect at a low point. A high speed vehicle that is high enough, such as large truck, may be able to use the low webbing formed by the intersecting cables as a ramp, and simply roll over the fence on this ramp. While Crisp extends a tie bar 33 between the superposts in the area over the low post, the tie bar 33 has no reinforcing cables, and will simply break away under impact by an attacking vehicle.

Another problem with the spiderweb area between Crisp's superposts is that it is less secure to footbound intruders. The other portions of Crisp's fence feature planar rails, so that pickets may be attached to prevent such intruders from entering the

protected area. But in the spiderweb area, because the sloping rails from adjacent superposts intersect, those rails could not be positioned within a single plane. This means that any attached pickets would be situated in at least two different planes, resulting in an unsightly picket gap at the midpoint. Such a gap may be large enough to permit an intruder to squeeze through, or may provide a foothold that could assist an intruder seeking to scale the fence.

The fence defined in the Applicants' claim 1 does not suffer from the disadvantages of Crisp's system. The Applicants do not rely on a cable that slopes to the ground at the end of its horizontal run. Instead, when the Applicants' cable ends a horizontal run at a terminal post, the cable remains within that terminal post and is anchored within its ballast filling. This feature allows the Applicants' fence to have an appearance more resembling a typical picket fence. Because there is no need for Crisp's intersecting sloping cables in the Applicant's system, there are no cable low points, and thus less vulnerability to breach by vehicle rollover. Moreover, any pickets installed between adjacent posts in the Applicants' can be disposed in a single plane. This means that any pickets installed the Applicants' fence will suffer from gaps, and the security concerns that such gaps pose.

Crisp has adopted a wholly different approach to securing the cable ends than has the Applicant. Because of this, we know of no apparent reason why an artisan would modify the Crisp system so as to arrive at the structure defined in the Applicant's amended claim 1. That claim accordingly would not have been obvious in view of Crisp.

Claims 9, 11 and 14 depend directly or indirectly from claim 1, and include all of its limitations. Those claims would not have been obvious for the same reasons as claim 1.

G. Other Claim Amendments and New Claims.

Withdrawn claims 31-40 have been cancelled.

Original claim 5 depended from claim 4, which has been cancelled. Original claim 8 depended from claim 7, which has been cancelled. Claims 5 and 8 have accordingly been amended to depend from claim 1.

Original claim 11 depended from claim 10, which has been cancelled. Claim 11 has accordingly been amended to depend from claim 9.

Original claim 27 depended from claim 26, which has been cancelled. It has been amended to depend from claim 21.

New claim 42 offers limitations similar to those offered in claim 14, but depends from claim 1, rather than claim 9. Claim 14's references to a "third" rail system, rail cable assembly and cable have been changed to "second," in order to avoid any gap in ordinal numbering. In addition, rather than characterizing the two rails systems as "aligned," as in claim 14, claim 9 characterizes these rails systems as being at the same vertical position.

New claim 43 depends from claim 42 and states that the fence is formed from a plurality of tubular terminal posts, with the second and third terminal posts are being closest tubular terminal posts to the first terminal post. The claim further requires at least one intermediate terminal post between the first and second and

second and third terminal posts. See Applicants' Figures 2 and 3. This structure contrasts with Crisp, in which there is no intermediate post between the two closest superposts 14 and 14'.

New claim 44 depends from claim 42 and specifies that the first and second rail systems each engage the first terminal post at a position above ground level. See Applicants' Figure 3. In Crisp's system, on the other hand, the rail system on one side of the Crisp superpost engages it at or below ground level. See Crisp Figures 1 and 4.

New claim 45 offers the same limitation as claim 44, but depends from claim 43.

New claim 46 depends from claim 1 and requires that the first cable enter the first terminal post at an above-ground position, extend on a substantially vertical downward path therefrom, and terminate at its first end at an underground position within the first terminal post. See Applicant's Figure 3. In the Crisp system, on the other hand, the cable extends diagonally through the superpost, rather than on a substantially vertical path within the post. See Crisp Figure 4.

New claim 47 depends from claim 46 and requires that the first cable enter the second terminal post at an above-ground position, extend on a substantially vertical downward path therefrom, and terminate at its second end at an underground position within the first terminal post. See Applicant's Figure 3. As noted with regard to claim 36, the Crisp cable terminates on a diagonal rather than substantially vertical path, and does not terminate within the post.

New claim 48 depends from claim 42 and requires that the first, second and third terminal posts be disposed in a non-collinear relationship. This limitation is supported by Applicant's specification at page 23, lines 6-10.

H. Conclusion.

In view of the foregoing, it is believed that the application, as amended, now is in condition for allowance. In the event that the Examiner has any questions or comments concerning the application or this Amendment, the undersigned would welcome the opportunity to discuss the case with the Examiner.

This is intended to be a complete response to the Action mailed June 21, 2007.

Respectfully submitted,

s/Gary Peterson/
Gary Peterson, Reg. No. 28,891
211 N. Robinson Ave., Suite 450 South
Oklahoma City, OK 73102
(405) 606-3367

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Attorney for Applicants